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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,019	12/12/2001	Stephen L. Holmgren	2001-0381	4134

26652 7590 10/28/2005

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EXAMINER	
DUONG, FRANK	

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/016,019	HOLMGREN ET AL.	
	Examiner	Art Unit	
	Frank Duong	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *16,18,20,22 and 24* is/are allowed.

6)☒ Claim(s) *1-8,10-15,17,19,21 and 23* is/are rejected.

7)☒ Claim(s) *9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is a response to communications dated 12/12/01. Claims 1-24 are pending in the application. It is noted there are two claims 13. The USPTO has applied 37 CFR 1.126 to renumber the latter claim 13 and 14-23 into claims 14-24, respectively.

Information Disclosure Statement

2. The information disclosure statement filed 02/28/02 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been considered and placed in the application file.

Claim Objections

3. Claims 9-10, 13 and 16 are objected to because of the following informalities:

As per claim 9 and 16, lines 15 and 16, respectively, the term "may identify" should be changed to --is identified--.

As per claim 10, line 6, "a tag specifying" should read --, wherein the tag specifies-- or --specifying--.

As per claim 13, line 6, "the a frame" should read --a frame--.

Appropriate correction is required.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or

discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claim 19 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8, 10-15, 17, 19, 21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Burns et al (USP 6,757,298) (hereinafter "Burns").

Regarding **claim 1**, in accordance with Burns reference entirety, Burns discloses a method (*Figs. 9-10 and col. 8, line 31 to col. 9, line 61*) for communicating information

from a source (*not shown; device connected to VLAN interface 920*) to a destination (*not shown; device connected to ATM interface 930*), the source served by a first network (VLAN) and the destination served by a second network (ATM), comprising the steps of

receiving at an interworking facility (*switch 900*) a first frame (*frame from VLAN interface 920*) which includes a payload and a first destination address in a first format (*VLAN frame*) compatible with said first network (VLAN), the first destination address (VLAN ID) established by the interworking facility by resolving destinations available to the source through the second network (*col. 9, lines 25-44, Burns discloses a frame is received by the ATM interface to be transmitted over the ATM network, the frame first passes through the ISL layer 1002 that assigns the frame with a VLAN ID corresponding to its destination in accordance with the ISL protocol. At col. 10, line 1 and thereinafter, Burns discloses VTAP Management protocol to learn (resolving) identity of the end device*);

forming a second frame of a second format (ATM cell) compatible with the second network (ATM network), the second frame including the payload (*col. 9, lines 31-44, Burns discloses AAL layer 1006 segments the frame into ATM cells forwarding to destination via ATM n*etwork); and

mapping the first destination address (VLAN ID) to a second destination address (VPI/VCI) specifying in the second format the address of the destination in the second network so that the second network, upon receipt of the second destination address, can route the second frame to the destination (*col. 9, lines 35-44, Burns discloses VLAN*

ID is also used to lookup the outbound table 1200 to determine the VPI/VCI address of the switch to which the frames should be forwarded to. The retrieved VPI/VCI address along with the frame is then passes to the AAL layer for segmenting the frame into ATM cells).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Burns further discloses wherein the first frame (VLAN frame) has an Ethernet format and wherein the first destination address comprises a Virtual Local Area Network tag within the Ethernet-formatted first frame (VLAN ID) (*col. 9, lines 25-44*).

Regarding **claims 3 and 19**, in addition to features recited in base claim 1 (see rationales discussed above), Burns further discloses wherein the second frame (ATM) has an Asynchronous Transport (ATM) format and wherein the second destination address (VPI/VCI) comprises an ATM Virtual Private Network (VPN) Permanent Virtual Circuit (PVC) (*col. 9, lines 25-44. Moreover, PVC is discussed at col. 1, line 8 and thereinafter*).

Regarding **claim 4**, in addition to features recited in base claim 2 (see rationales discussed above), Burns further discloses wherein the second frame (ATM) has an Asynchronous Transport (ATM) format and wherein the second destination address (VPI/VCI) comprises an ATM Virtual Private Network (VPN) Permanent Virtual Circuit (PVC) (*col. 9, lines 25-44. Moreover, PVC is discussed at col. 1, line 8 and thereinafter*).

Regarding **claim 5**, in addition to features recited in base claim 4 (see rationales discussed above), Burns further discloses wherein the mapping of the first destination

address to the second destination address comprises the step of mapping the VLAN tag to the ATM VPN PVC (*col. 9, lines 36-37*).

Regarding **claim 6**, in addition to features recited in base claim 1 (see rationales discussed above), Burns further discloses wherein the first frame has an Asynchronous Transport (ATM) format and wherein the first destination address comprises an ATM Virtual Private Network (VPN) Permanent Virtual Circuit (PVC) (*col. 9, lines 45-61, Burns discussed case where the ATM cells 1008 are received at eh ATM interface. Moreover, PVC is discussed at col. 1, line 8 and thereinafter*).

Regarding **claim 7**, in addition to features recited in base claim 6 (see rationales discussed above), Burns further discloses wherein the second frame has an Ethernet format and wherein the second destination address comprises a Virtual Local Area Network (VLAN) tag within the Ethernet-formatted first frame (*col. 9, lines 45-61*).

Regarding **claim 8**, in addition to features recited in base claim 7 (see rationales discussed above), Burns further discloses wherein the mapping of the first destination address to the second destination address comprises the step of mapping the ATM VPN PVC to the VLAN tag (*col. 9, lines 45-60, Burns discusses AAL layer 1006 reassembles the cells back into the VTAP encapsulated frame and passes to VTAP layer 1004. At VTAP layer 1004, VTAP header is parsed for the DEST VLAN field*).

Regarding **claim 10**, in accordance with Burns reference entirety, Burns discloses a method (*Figs. 9-10 and col. 8, line 31 to col. 9, line 61*) for communicating information from a source (*not shown; device connected to VLAN interface 920*) served by a first network (VLAN network) and destined for at least one destination (*not shown;*

device connected to ATM interface 930) served by a second network (ATM network), comprising the steps of:

resolving via an internetworking facility an identifying address for the destination *(at col. 10, line 1 and thereinafter, Burns discloses VTAP Management protocol to learn (resolving) identity of the end device*;

receiving the first frame (*frame from VLAN interface 920*) at the interworking facility (*switch 900*), the first frame also including a Virtual Local Area Network (VLAN) Tag (VLAN ID), wherein the tag specifying in a first format the identifying address for destination in the second network (*col. 9, lines 25-44, Burns discloses a frame is received by the ATM interface to be transmitted over the ATM network, the frame first passes through the ISL layer 1002 that assigns the frame with a VLAN ID corresponding to its destination in accordance with the ISL protocol*);

forming a second frame of a second format (ATM cell) compatible with the second network (ATM network) and including the payload (*col. 9, lines 31-44, Burns discloses AAL layer 1006 segments the frame into ATM cells forwarding to destination via ATM n*etwork); and

mapping the address specified in the VLAN tag (VLAN ID) to a second destination address (VPI/VCI) that is of a second format to enable transmission of the second frame to the destination through the second network using the second destination address (*col. 9, lines 35-44, Burns discloses VLAN ID is also used to lookup the outbound table 1200 to determine the VPI/VCI address of the switch to which the frames should be forwarded to).*

Regarding **claim 11**, in addition to features recited in base claim 10 (see rationales discussed above), Burns further discloses wherein the second frame (ATM) has an Asynchronous Transport (ATM) format and wherein the identifying address (VPI/VCI) of the destination comprises an ATM Virtual Private Network (VPN) Permanent Virtual Circuit (PVC) (*col. 9, lines 25-44. Moreover, PVC is discussed at col. 1, line 8 and thereinafter*).

Regarding **claim 12**, in addition to features recited in base claim 10 (see rationales discussed above), Burns further discloses wherein the mapping of the first destination address to the identifying address of the destination comprises the step of mapping the VLAN tag to the ATM Virtual Circuit (PVC) (*col. 9, lines 31-44, Burns discusses the mapping of VLAN to VPI/VCI using table 1200).*

Regarding **claim 13**, in accordance with Burns reference entirety, Burns discloses a method (*Figs. 9-10 and col. 8, line 31 to col. 9, line 61*) for communicating information embodied in a payload of a first ATM-formatted frame, originating at a source (*not shown; device connected to VLAN interface 920*) served by a first network (VLAN network), to at least one destination (*not shown; device connected to ATM interface 930*) served by a second network having a broadcast protocol (ATM network), comprising the steps of:

resolving via an internetworking facility an identifying address for the destination *(at col. 10, line 1 and thereinafter, Burns discloses VTAP Management protocol to learn (resolving) identity of the end device*;

receiving at the interworking facility (*switch 900*), the frame (*frame from VLAN interface 920*) that also includes a first destination address (*VTAP header*) in the form of an ATM Virtual Private Network (VPN) Permanent Virtual Circuit (PVC) specifying the identifying address for the destination in a first format (*col. 9, lines 45-61, Burns discloses ATM cells 1008 are received at the ATM interface. Moreover, PVC is discussed at col. 1, line 8 and thereinafter*);

forming a second frame of a second format (*VTAP frame*) compatible with the second network (VLAN network) and including the payload (*col. 9, lines 45-48, Burns discloses AAL layer 1006 reassembles the cells back into the VTAP frame*); and

mapping the first destination address (*VPI/VCI or VTAP header*) into a second destination address (VLAN ID) in the second format (VLAN frame) to enable routing of the second frame to the destination (*col. 9, lines 52-61, Burns discloses VTAP header is parsed for VLAN ID used to lookup the table 1100 to determine the logical ISL address that the frame should be forwarded to).*

Regarding **claim 14**, in addition to features recited in base claim 13 (see rationales discussed above), Burns further discloses wherein the second frame has an Ethernet format and wherein the second destination address comprises a Virtual Local Area Network (VLAN) tag within the Ethernet-formatted first frame (*col. 9, lines 45-61*).

Regarding **claim 15**, in addition to features recited in base claim 13 (see rationales discussed above), Burns further discloses wherein the mapping of the first destination address to the second destination address comprises the step of mapping the ATM VPN PVC to the VLAN tag and creating an Ethernet frame (*col. 9, lines 45-67,*

Burns discusses AAL layer 1006 reassembles the cells back into the VTAP encapsulated frame and passes to VTAP layer 1004. At VTAP layer 1004, VTAP header is parsed for the VLAN ID. The VLAN ID is used to lookup in table 1100 to determine the logical ISL address that the frame should be forwarded to. The ISL frame is forwarded to its destination VLAN).

Regarding **claim 17**, in accordance with Burns reference entirety, Burns discloses a method (*Figs. 9-10 and col. 8, line 31 to col. 9, line 61*) for communicating information from a source (*not shown; device connected to VLAN interface 920*) to a destination (*not shown; device connected to ATM interface 930*), the source served by a first network (VLAN) and the destination served by a second network (ATM), comprising the steps of

receiving at an interworking facility (*switch 900*) a first frame (*frame from VLAN interface 920*) which includes a payload and a first destination address in a first format (*VLAN frame*) compatible with said first network (VLAN), the first destination address (VLAN ID) established by the interworking facility by resolving destinations available to the source through the second network (*col. 9, lines 25-44, Burns discloses a frame is received by the ATM interface to be transmitted over the ATM network, the frame first passes through the ISL layer 1002 that assigns the frame with a VLAN ID corresponding to its destination in accordance with the ISL protocol. At col. 10, line 1 and thereinafter, Burns discloses VTAP Management protocol to learn (resolving) identity of the end device*);

forming a second frame of a second format (ATM cell) compatible with the second network (ATM network), the second frame including the payload (*col. 9, lines 31-44, Burns discloses AAL layer 1006 segments the frame into ATM cells forwarding to destination via ATM n*etwork); and

mapping the first destination address (VLAN ID) to a second destination address (VPI/VCI) specifying in the second format the address of the destination in the second network so that the second network, upon receipt of the second destination address, can route the second frame to the destination (*col. 9, lines 35-44, Burns discloses VLAN ID is also used to lookup the outbound table 1200 to determine the VPI/VCI address of the switch to which the frames should be forwarded to. The retrieved VPI/VCI address along with the frame is then passes to the AAL layer for segmenting the frame into ATM cells*).

Regarding **claim 21**, in addition to features recited in base claim 19 (see rationales discussed above), Burns further discloses wherein the mapping of the first destination address to the second destination address comprises the step of mapping the VLAN tag to the ATM VPN PVC (*col. 9, lines 31-44, Burns discusses the mapping of VLAN to VPI/VCI using table 1200).*

Regarding **claim 23**, in addition to features recited in base claim 21 (see rationales discussed above), Burns further discloses wherein the second frame has an Ethernet format and wherein the second destination address comprises a Virtual Local Area Network (VLAN) tag within the Ethernet-formatted first frame (*col. 9, lines 45-61*).

Allowable Subject Matter

6. Claims 16, 18, 20, 22 and 24 allowed.

7. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed novel and unobvious limitation of "*matching an identification tag in the ARP polling request to a path identifier that identifies a path to said one destination through the second network*" structurally and functionally interconnected with other limitation in the manner as recited in claims 16, 18, 20, 22 and 24.

Dependent claim 9 further limits base claim 1 with the novel limitation as indicated above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ross (USP 5,394,402).

Hart (USP 5,752,003).

Suzuki et al (USP 5,892,912).

Bronstein et al (USP 5,910,954).

Alexander, Jr. et al (USP 5,946,311).

Takihiro et al (USP 5,777,994).

Burnett et al (USP 5,444,702).

Passmore et al, The Virtual LAN Technology Report, Decisys, Inc., pages 1-21, 1996.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FRANK DUONG
PRIMARY EXAMINER

October 24, 2005